

# Solid State Relay

## EPI600 Series Single Phase AC Output

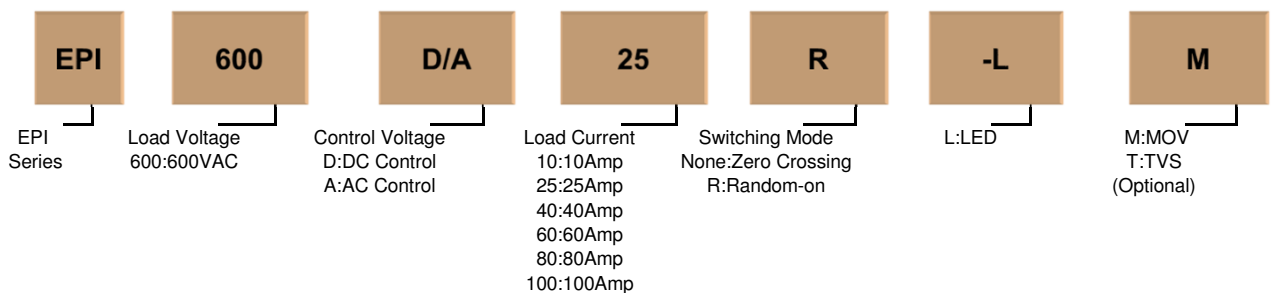


- Zero Switching or Random-on
- Ratings from 10A to 100A @ 48-660VAC
- SCR Output
- AC or DC Input
- DBC substrate for Superior Thermal Performance
- Dielectric Strength 4000VACrms
- LED Indication
- RC/MOV and TVS Protection Circuit as Optional

### Product Description

EPI600 series industrial single phase relay with SCR output is widely used in many industrial applications. The relay can be used for resistive, inductive or capacitive load. The control input voltage is 4-32VDC or 90-280VAC. The output current is rated at 10A, 25A, 40A, 60A, 80A, or 100A @ 48-660VAC.

### Product Selection



Description	10A	25A	40A	60A	80A <sup>(1)</sup>	100A <sup>(1)</sup>
DC:4-32VDC	EPI600D10-L(M)(T)	EPI600D25-L(M)(T)	EPI600D40-L(M)(T)	EPI600D60-L(M)(T)	EPI600D80-L(M)(T)	EPI600D100-L(M)(T)
	EPI600D10R-L(M)(T)	EPI600D25R-L(M)(T)	EPI600D40R-L(M)(T)	EPI600D60R-L(M)(T)	EPI600D80R-L(M)(T)	EPI600D100R-L(M)(T)
AC:90-280VAC	EPI600A10-L(M)(T)	EPI600A25-L(M)(T)	EPI600A40-L(M)(T)	EPI600A60-L(M)(T)	EPI600A80-L(M)(T)	EPI600A100-L(M)(T)

### Technical Specification

#### Input Circuit

Control Voltage Range	DC Input	4-32VDC
	AC Input	90-280VAC
Minimum Turn-On Voltage	DC Input	4VDC
	AC Input	90VAC
Minimum Turn-Off Voltage	DC Input	1VDC
	AC Input	10VAC
Maximum Input Current	DC Input	25mA
	AC Input	10mA

#### Output Circuit

Load Voltage	48-660VAC	
Maximum Turn-On Time	DC Input Random-On	1ms <sup>(2)</sup>
	DC Input Zero-On	1/2AC Cycle + 1ms
	AC Input	20ms

Maximum Turn-Off Time	DC Input	1/2AC Cycle + 1ms
	AC Input	40ms
Maximum Surge Current [@10ms]	10A	150A
	25A	400A
	40A	460A
	60A	860A
	80A	1280A
	100A	1400A
Maximum I <sup>2</sup> t For Fusing [@10ms]	10A	350A <sup>2</sup> S
	25A	780A <sup>2</sup> S
	40A	960A <sup>2</sup> S
	60A	3600A <sup>2</sup> S
	80A	8100A <sup>2</sup> S
Transient Overvoltage		1600Vpk
Maximum Off-State Leakage Current [@ Rated Voltage]	10A~60A	5mA
	80A~100A	0.1mA
Maximum On-State Voltage Drop [@ Rated Current]		1.6Vrms
Minimum Off-State dv/dt [@ Maximum Rated Voltage]		500V/μs

### General Information

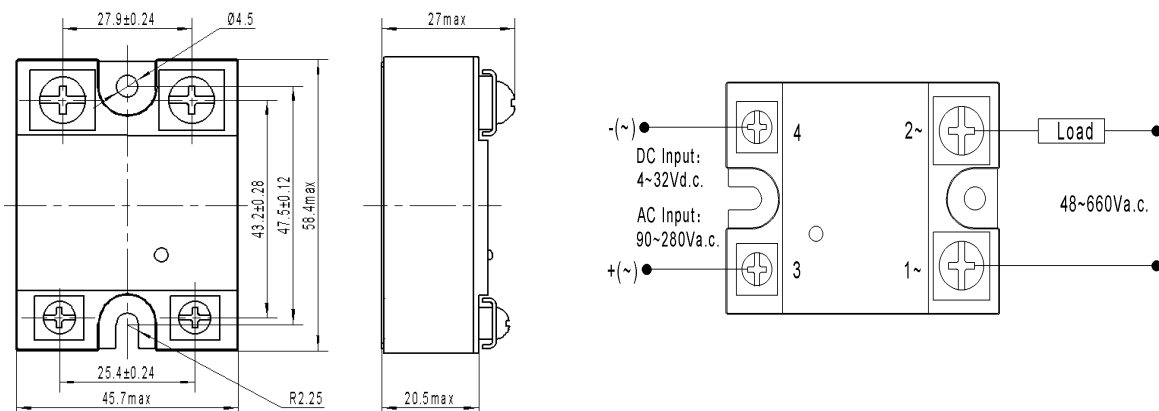
Dielectric Strength, Input/Output/Base [50/60Hz]	≥4000Vrms / 2500Vrms
Ambient Operating Temperature Range	-30°C ~ +80°C
Ambient Storage Temperature Range	-30°C ~ +100°C
Weight [Typical]	96g <sup>(3)</sup>

### Application

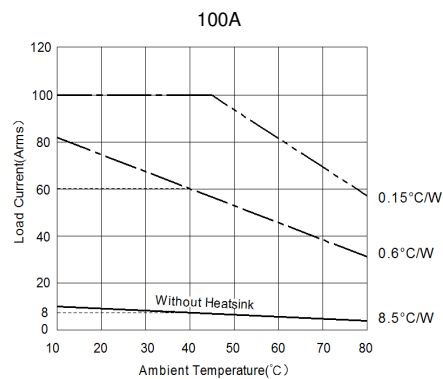
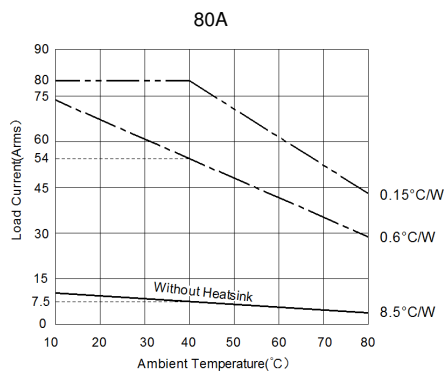
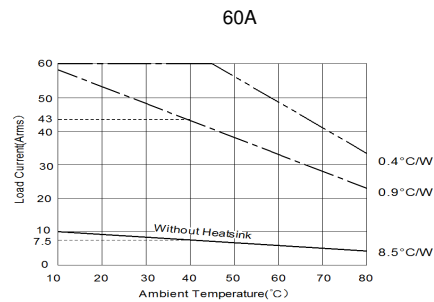
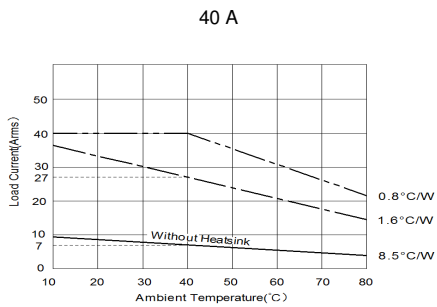
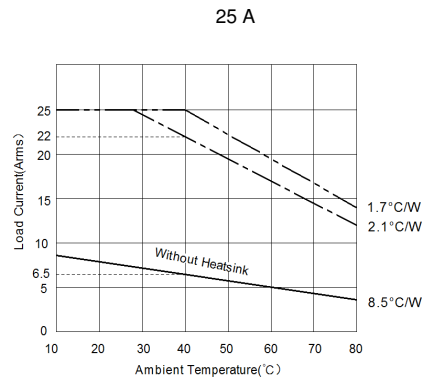
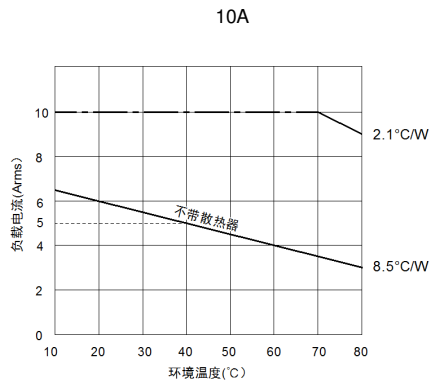
High-low Temperature Chamber, Plastics Machinery, Incubation Machine, Oiling Machine, HVAC, Elevator Lighting, Fountain Controller.

### Installation

### Connection



## Thermal Curve



### Important Notice

1. When the ambient temperature is more than 40°C or many EPI series are installed closely together, the user should take load discount into account according to the thermal curve.
2. If the load current is more than 5A, suitable heatsink should be added to the SSR.

### Product Certification



### General Note:

- (1) For 80A or 100A, no RC snubber circuit
- (2) For code 084, the turn-on time is 0.02msec(DC Control Models)
- (3) For 100A, the weight is 150g
- (4) For 100A, TÜV certificate is not available at present
- (5) For 100A, UL certificate is under application

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